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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

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Strasbourg, 27-30 November 2012

Other complaints

**THREAT TO THE BROWN BEAR
IN CROATIA**

REPORT BY THE NGO

*Document prepared by
Udruga Animalia*



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BEAR CONSERVATION MANAGEMENT IN CROATIA – A CLAIM

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As we already wrote in our previous correspondence, the Report by the Croatian government regarding a claim for improper bear conservation management in Croatia is full of untrue and uncomplete information and so we consider that it is our obligation to elaborate furthermore our claim and to explain in details our statements with the proves supporting them.

We shall divide this answer in chapters in accordance to specific issues mentioned in the Government report. We would like to emphasize that Government report does not give the answers to all our statements mentioned and explained in our claim, obviously, in order to avoid some very important issues and we shall add the comments regarding that topics.

Introductory remarks

1. Although in the chapter Introductory remarks of the Government report we (NGO Animalia) are presented as "*nature and animal lovers who occasionally whiteness something*", which we consider as an attempt of humiliation, in this answer we will not debate on our competence, because it is completely unimportant who we are, but it does matter if our statements are true or false.

In that chapter, the Government says that "*the Committee... and the research team at the Biology Department of the Faculty of Veterinary Medicine in Zagreb... **consistently perform a full scale monitoring of the brown bear population in Croatia.***"

That statement is not true. Namely, Government should explain the way how the Committee and the Faculty of Veterinary Medicine in Zagreb perform such activities and give the proof for it. For instance, how many bears were marked by these two institutions and were followed with radio transmitters in the last five years, in which part of the bear habitat bear research was conducted, how they evaluate the changes of the habitat produced by forest management (how many km of forest roads, the percentage of habitat that became unsuitable for bears) and by the construction of other infrastructure, which changes in the bear habitat they noticed etc.

We do not deny that Veterinary faculty perform certain activities, **but it is not a full scale monitoring**, for sure. Their work is mostly based on statistical analysis of old data collected by dr. Huber many years ago, collecting of samples from bears killed in the legal hunting or died in accidents and statistical analysing of such data. The percentage of the field work in their activities is very low and they base their conclusions exclusively on the unverified data they get from hunters (which they accept uncritically), consciously ignoring all other data which indicate that the situation is quite different.

Contrary to such limited activities of the Veterinary faculty, the Committee for Bear does not perform any kind of field or other research activities, or monitoring, regarding bear habitat or bear

population dynamics. The Committee for Bears does not have the competence or technical possibilities which would enable it to perform any kind of research of bears and its habitat. The members of the Committee are not experts, many of them do not possess minimum level of biological knowledge and they were nominated in the Committee according to their functions (connected with hunting), and not on the basis of their scientific results or knowledge of bear biology and ecology.

2. In the Government report is stated that *“annual population growth is 7%”*.

Unfortunately, the method how they obtained that conclusion remained unknown. How they got this result?

This statement is completely untrue and, as you can see, completely unproved. It is regularly used by authorities in order to justify unacceptable bear management in Croatia.

3. In the Government report, it is said that *“...all interest groups (including some members of Animalia) have been invited to workshops...in 2004 and 2008)”*.

The NGO Animalia is founded in 2008 and we have never got any invitation or information for any kind of meeting regarding bears. If the Government claims that they do invite us on such meetings, they should support their statements by proves (official invitation confirmed by registered mail or e-mail, or any other kind of correspondence they used). Naturally, the Government does not have any kind of proof because they consciously do not invite NGOs involved in nature protection (or individuals) on such meeting and avoid any kind of discussion on bear management with such NGOs. Such behavior started in 2004 when some current members of NGO Animalia submitted the claim against Republic of Croatia for improper bear management, which was the base for EC Scientific Review Group to withdraw the license for bear trophy import in the EU countries. This behavior continues even today. We will mention only few of recent examples where we were not invited nor informed of the meetings: on 30th June 2010 the Committee for Bears held the meeting in Crni lug, on 15th June 2011 the Workshop for bear management was held in Brinje, in May 2012 (after submitting this claim) Committee for Bears organized the meeting on bear management in Kuterevo.

We would like to emphasize that the crucial issue is not the lack of invitation for NGO Animalia, but the fact that all the people and organizations who want and can discuss with arguments on this topic, are systematically eliminated from any kind of discussion, in order to avoid arguments which prove that actual bear management is unsustainable. It is the problem which cause enormous consequences for the future of the bear and its habitat, because they depend on partial interest of one clique, which are in contrast with bear conservation.

Current legal situation

In this chapter the Government does not deny any of our statements. Their claim that within the territory of bear presence (12.000 km²) there is area of occasionally bear presence where hunting quota is not applied (only intervention removals are allowed), does not influence our statements. The fact is that the actual hunting quota is 100 bears per year, to which we have to add loses from traffic and other causes (which are unknown). The hunting quota is not performed in national parks and strict reserves, as we previously wrote, and the intervention removals from the area of occasional bear presence are added to annual hunting quota.

All this means that annual losses of bears are much greater than 100 individuals (planned for legal hunting).

How the Management Plan and Action plans were adopted?

In the Government report they claim that management plans were prepared on the basis of public opinion regarding bear population growth.

That statement is completely untrue. The public was not able to participate in the process of preparation of the management plans, because public was not informed on the process of the preparation of the management plan and consequently, as we already explained, was not invited to participate in that process as well. Namely, Ministry of Agriculture and Forestry which lead the process of preparation of the management plan chose to invite only specific organizations or individuals to participate in the process. All invited persons were members of hunting organizations or

state institutions which had the task to accept all the measures and conditions proposed by the Ministry of Agriculture and Forestry. It is necessary to underline that in the state institutions for nature conservation (even today!) there is no one single person whose field of scientific interest are large carnivores or precisely, the bear.

All surveys of local public opinion that were performed, as it was stated in the Government report, were performed only among invited people (and not among the general public). Just for the explanation, one of the signatory of this letter, Gordana Pavokovic PhD, in that time was working in one of the institutions for nature protection and as a member of institution participated on the meetings regarding implementation Natura 2000 in Croatia, where, one of the topics was bear conservation within Natura 2000. In that time A. Majic (referenced in the Government report) performed the survey of opinion in the way that **invited people were asked** to express their attitude regarding certain questions. So, it was not the survey of local public or general public opinion, because the great majority of public interested in bear conservation did not have the information on such survey. Also, as a person who worked for institution for nature protection, G. Pavokovic was warned in anticipation not to express any kind of opinions, but just to be present on the meetings.

There is one more thing that is very important. At the end of the meetings, the participants did not get any kind of document, for instance minutes, from which it could be visible which objections and discussions were accepted and which were denied and why. After the meeting, participants did not get any kind of information how the process goes on and why, which means that all the meetings were held only formally, in order to satisfy the formal procedure.

But, even if it had been true that the Management plan was based on public opinion that would have been unacceptable.

General public possess only superficial knowledge on bears and its population and its attitudes are based on unverified stories and prejudices and naturally, not on scientific results.

This kind of statement clearly shows that the scientific results on the population size and dynamics does not exist, which we shall elaborate in further discussion.

The statements in the Government report emphasize the “*annual workshops with all stakeholders*”, but such meetings were never held. As we already stated, **on the meetings regarding bears** (we mentioned in this letter the last three), **only representatives of hunting organizations were invited, and all other interested parties were excluded.**

How the bear population size was defined?

As we already stated in our claim, up to 2002 our government and dr. Huber claimed that in Croatia **we had 400 bears and that it is the capacity of our habitat** (Huber, Đ. 1997: Zanimljivosti zivotinjskog svijeta Plitvičkih jezera; Frkovic, A. 1997: Medvjed u Hrvatskoj - stanje, gospodarenje, problemi, mediji, Lividraga (Gorski kotar), 3-5. III. 1997., Sumarski list 3-4; Huber, Đ. 1998. Gdje cemo sutra zivjeti; Huber, Đ. 1998: Medvjed - dragulj hrvatske prirodne bastine; Frkovic, Huber, Kusak, 2001: Brown bear litter size in Croatia, Ursus).

Similar papers are still available on internet.

These claims were still actual in papers in 2002 and 2003 (Frkovic, A. 2002: Smeđi medvjed u Primorsko-goranskoj zupaniji).

According to this, up to the end of 1990-ies, the annual hunting quota was app. 40 individuals. In the late 1990-ies, annual hunting quota suddenly increased and was cca 80 individuals.

The reason for the increase of hunting quota is explained in details in our claim (pages 4-5, subtitle: Recent history).

In 2004, only one year after the official statements that in Croatia population size is 400 bears, on the presentation of the first Bear management plan, the Working group which made the plan stated, for the first time, that there are 600-1000 bears in Croatia.

Is it possible that population size in the period of app. 15 years, with annual hunting quota of app. 40 individuals, was 400 bears (which was the maximum capacity of habitat) and then in a period of one year, together with the increase of the annual quota, population officially doubled?

In the time of official change of population size (in 2004) **DNA analysis was not performed (or any other scientific estimate of population size which would justify the sudden increase of the population size)** and new official population size was in accordance to the wishes of the hunting ground leases and to the wishes of the state which harvested the hunting fees.

Simple rules for estimation of the population size through DNA analysis

1. Since the sampling could not be performed on the whole territory of bear habitat, the **sampling areas should be precisely determined before starting of sampling activities.**
2. **Sampling areas should be representative**, which means that they represent the whole bear habitat in the sense of the quality of habitat and density of bears. Namely, inside the bear habitat there are enormous differences and consequently number of bears is higher or lower, depending on the quality of single part of habitat.
3. Searching for bear feces in sampling areas **should be well organized and performed systematically**, not occasionally and opportunistically.
4. **Sampling period must be very short.** The programs CAPTURE and MARK require **closed populations** (at least during the sampling period). **A violation of the closure assumption can result in biased population size** (White et al. 1982: Capture-recapture and removal methods for sampling closed populations. Los Alamos National Laboratory, Los Alamos, NM; McCullough and Hirth, 1988: Evaluation of the Petersen-Lincoln estimator for a white-tailed deer population. J. Wildlife Manage. 52, 534-544; Hallet et al. 1991: Comparison of population estimators for medium-sized animals. J. Wildlife Manage. 55, 81-93; Castley et al., 2002: Estimation of the lion (Panthera leo) population in the southwestern Kgalagadi Transfrontier Park using a capture-recapture survey. African Zool. 37, 27-34.). While it is typically assumed that this will be violated to some degree, violation of this assumption can be minimized by choosing a specific sampling period. It is generally recommended that **bear populations should be sampled during the period of June through August**. That recommendation is particularly applicable for USA or northern countries, but in the countries with warmer climate, like Croatia and other Mediterranean countries the experience says that sampling period should be determined through August and September, because in that period UV radiation, which cause destruction of DNA on fecal samples, is lower. Birth during this period is absent and death is generally low which helps in assuming that the population is "closed" during this time period.
5. It has been recommended that the study contain **a minimum of 3 sampling periods (in 3 consecutive years)**, with 4 or more sampling period being most recommended.

How the DNA analysis of bear fecal samples was performed in Croatia?

1. Before starting of sampling in Croatia, **sampling areas were not designed in anticipation.** The task for people who collected bear feces was to search and take samples **throughout the whole bear habitat**, not in particular zones designed before collection. In other words, it means that sampling area was determined after feces collection.
2. People who were **searching for bear fecal samples on the whole bear habitat**, managed to **find samples mostly on three areas**: in Gorski kotar north, in Gorski kotar south and on north Velebit Mountain. Why? Because **these areas are the most suitable bear habitats** (without human settlements, roads and increased disturbance), and practically these areas are only parts of bear habitat in Croatia where this species could satisfy the main part of its ecological needs.

So, the **search for samples was performed** also in the **areas without bears**, but **three the most suitable bear habitats** at the end were **presented as the only sampling areas**, which is untrue. And then, at the end, the results obtained from these three the most suitable areas were extrapolated on the whole bear territory, even where bears were rare or nonexistent. That

means that **they extrapolated the results that were already extrapolated**, which is simply the manipulation with scientific results. In that way, the extrapolated results are biased.

L. Radoslovic, a signatory of this letter, was among the first persons who started collection of bear fecal samples for DNA analysis. The need for this analysis arose due to the fact that the Law on hunting (in that time) allowed to all hunting ground leases to present its "own" bear population size, which consequently led to enormous increase of bear population in official documents, as we already described in details in our claim (subtitle: Recent history, pp 4-5). The aim of the sampling (as it was presented to the people who collected the samples), was to collect at least 1000 samples (which was 2,5 x more than 400, which was estimated population size), in order to be able to make rarefaction curve and estimate the population size.

So, L. Radoslovic was deeply involved in the process of collection of samples (he was searching for fecal samples on the whole bear habitat, wherever it was possible for him). When he realized the manipulation within the sampling process, he refused to continue to participate in that process.

After that, some organizational parts of the state firm Croatian forests, continued the sampling process, but always **without sampling area designed in anticipation and without determined sampling period**.

3. As previously described, **searches for bear feces were not organized and performed systematically, but it was performed occasionally and opportunistically**, and depended firstly on few volunteers who collected the samples (according to their possibilities and good will) and later on the will of employees of some organizational parts of the state firm Croatian forests.
4. As we already written in our claim, sampling period was not designed in anticipation. The search for samples was conducted over the whole year period in the total period of 5 years (from 2003-2007) (Kocijan, I. 2009: Geneticke osobitosti populacije smeđeg medvjeda *Ursus arctos* u Hrvatskoj; PhD Disertation). **All the results were not divided among years, the period of 5 years was considered as one capture period (violation of the assumption on closed population)**.
5. As we stated in the point 4, the search for samples was conducted over the whole year period in the total period of 5 years, which undoubtedly lead to bias. Namely, bears have large home ranges (Dahle and Swenson, 2003: Family breakup in brown bears: are young forced to live? J. Mammal. 84 (2), 536-540), and maximum movements of up to 42 km/24 h have been recorded in Scandinavia (Wabakken and Maartman, 1994 in Solberg *et al.*, 2006: An evaluation of field and non-invasive genetic methods to estimate brown bear (*Ursus arctos*) population size. Biol. Conserv. 128: 158-168). Bear movements within only one year period are enormous, which means that only very short sampling period enable the assumption on closed population. That's why scientist throughout the world strictly follows this rule, in order to avoid bias. Besides that, analysis should be repeated in the following years in order to compare and control the results. Also, there is a recommendation to apply other so called "classical methods" of bear research (i.e. following of bears with radio transmitters) in order to determine if the assumption on the closed population is true (Bellemain, E. *et al.* 2005: Estimating population size of elusive animals with DNA from hunter-collected feces: four methods for brown bears; Conservation Biol. (19)1:150-161).

In Croatia, the average lifespan of bear is less than 5 years, which means that bears, on average, are killed at the beginning of sexual maturity. If sampling period is 5 years it means that one will undoubtedly count already killed bears, which consequently leads to bias.

Annex 7 of the Government report

Due to all above mentioned facts, dr. Huber and other Croatian experts **never published a scientific paper on bear population size in Croatia based on DNA analysis performed** in Croatia.

Annex 7 which Croatian Government sent to the Bern Convention Committee **is not a peer reviewed scientific paper, but just a report** written to Matra Fund which financed a project lead by dr. Huber, **without any scientific basis**.

Although collection of samples was initiated with the aim of determination of population size, due to inadequate methods, **the results could not be used for the determination of the bear population size, but for genetic diversity purposes** (Kocijan, I *et al.* 2011: Genetic diversity of Dinaric brown bears *Ursus arctos* in Croatia with implications for bear conservation in Europe. Mammal. Biol.; Kocijan, I. 2009: Genetičke osobitosti populacije smeđeg medvjeda *Ursus arctos* u Hrvatskoj; PhD Disertation).

We would like to give attention to some deficiencies within the Report for Matra Fund that in the Government Report is named Annex 7.

Under the subtitle Minimum number of bears, dr. Huber says that 166 different bears were recognized in the area that represents 30,66 % of the total range of permanent bear presence in Croatia and concludes that this data give result of **minimum of 433 bears** in Croatia. Then proceeds: ***“The factor of multiplication to get the actual population size is unknown, but may be above 2.5 up to close to 3. Hence, it can be speculated that a total population of 1000 bears is quite likely.”***

Why the factor of multiplication may be (as he said) **2.5 up to close to 3**? On the basis of **which criteria** he got these numbers?

In the text there is no explanation, because **the explanation does not exist**.

In the subtitle Mark-recapture calculation, dr. Huber says: ***“For the accurate calculation the share of recapture should be 2.5 to 3 times higher than the total expected population size. In our case the marked portion of population was below one third.”***

It is clear that no conclusions regarding population size could be made from such analysis. So, how dr. Huber could make a conclusion there are 1000 bears, when minimal conditions for the analyses were not satisfied?

The **minimal conditions** for **MARK** recapture calculation are: **the population closure assumption** (no immigration, emigration, birth or death), the assumption of **uniform detection probability**, and that those animals **do not lose their genetic tag** (Bellemain, E. *et al.* 2005: Estimating population size of elusive animals with DNA from hunter-collected feces: four methods for brown bears; Conservation Biol. (19)1:150-161).

These assumptions were not satisfied in Croatia and such method could not be applied (Kocijan, I. 2009: Genetičke osobitosti populacije smeđeg medvjeda *Ursus arctos* u Hrvatskoj; PhD Disertation, page 72.).

Besides, dr. Huber used Lincoln-Petersen mark-recapture model, which is not generally applicable, because it requires that a relatively large proportion of the population is marked, which is rare in populations of elusive species like the brown bear (Solberg *et al.*, 2006: An evaluation of field and non-invasive genetic methods to estimate brown bear (*Ursus arctos*) population size. Biol. Conserv. 128: 158-168).

In the subtitle Rarefaction curve dr. Huber says: ***“Rarefaction curve is another procedure that asks for a large number of recaptures. The attempt to draw rarefaction curve provided lines without approaching sigmoid part, thus are not real rarefaction curves”***.

How dr. Huber could make a conclusion about 1000 bears, based on rarefaction curve, when he at the same time says that there were not enough recaptures and that lines did not approach sigmoid part?

The reason for such rarefaction curve and for insufficient number of recaptures are **extremely long sampling period and inadequate sampling area**. Due to these reasons this method cannot give the reliable results on the population size. In the contrary, dr. Huber again concludes that we have 1000 bears.

Beside this, speaking of rarefaction curve, we have to mention that dr. Huber in his report **used only Kohn's method**, although other researchers have found that **this method give an estimate higher than what would be expected** by the rarefaction curve (Wilson et al. 2003: Estimation of budger abundance using faecal DNA typing. J. of Appl. Ecol. 40:658-666).

At the end of this chapter we would like to underline that the methods mentioned in the Report of dr. Huber, results in app. 1000 bears, exactly in accordance to the First Bear Management Plan (2004), where population size was estimated according to the wishes of the hunting ground leases, because up to that time DNA analyses were not performed. If we analyze obtained results with the process of sampling collection and methods used for the calculation of population size, everything is totally clear.

Forest management and Forest infrastructure

One the greatest threat to the population of brown bear in Croatia is habitat destruction and forest management (including the construction of forest infrastructure connected with forest management) and it has a crucial influence on a bear habitat. We think that this fact is undoubtfoul.

In our claim we stated that **in 2010 and 2011 the forest exploiting was enormously increased**. That fact **was not denied in the Government report**.

In the meantime, official data on the cutting rate in the 2011 was published by state firm Croatian forests and announced in media, and it was clearly said that during 2011, **5.200.000 m³** of wood was cut within the state territory, which is officially **18% increase** on the state level, comparing cutting rate in 2010. **In the bear habitat** (region of Gorski kotar, Lika and Velebit Mountain) that increase was much bigger and was between **35% and 50%**, depending on the area.

One has to agree that this is enormous increase of cutting rate.

As you can see, **in the Government report there is no any word regarding the cutting rates**. All this data you can control asking reports on cutting rates in 2009, 2010, 2011, in order to be able to compare the differences.

In the same time with increase of cutting rate, the construction of forest roads and logging paths was intensified, and that continue up today. Hundreds of kilometers of forest roads and logging paths are constructed and plan to be constructed in the most sensitive and most important parts of bear habitat.

Just to give you an example, we attached few photos taken this summer on the north Velebit.





Due to practice of such forest management, we already have negative consequences in the sense that **we have lost a Carpecaille *Tetrao urogallus*, which share the same habitat with the brown bear**, in the whole mountain part of Croatia, except on the north Velebit. Carpecaille is also protected by Bern convention, but **these facts are purposely omitted** in the Government report.

In the Government report **Forest Management Basis** are mentioned. They **should be renewed every ten years**. Among 10 year period of bringing out the new Forest Management Basis, Croatian forests should **analyze the forest and wood mass** again, and on the basis of new data prepare the new Forest Management Basis. **Up to 1981 it was done regularly**.

After 1981, Forest Management Basis are prepared in the way that **the most data were simply copied from previous documents**, instead of being based on new data. In that way the state firm Croatian forests, determining the cutting rate, **do not take into consideration thousands of kilometers of forest's and other roads, logging paths and other infrastructure** which was constructed **in the meantime** and which caused decrease of wood mass.

Beside this, in the meantime, the **great parts of forest has been damaged** due to illness and acid rains (especially fir *Abies alba* and spruce *Picea abies*), so some parts of larger forest areas are seriously damaged or even in the process of disappearance (for instance, spruce on the Velebit Mountain). In the meantime, huge infrastructural projects were completed (two major highways through bear habitat, gas pipelines) which caused the disappearance of large forest areas.

Despite these facts, cutting rate is always determined on previous data on the state of the forests and in the recent years is increased enormously.

In order to check our statements, it would be sufficient to compare Forest Management Basis and cutting rates from late 1990-ies (before infrastructural projects) and from 2011.

In the contrary to the statements from the Government report, **institutions for nature protection only formally give objections** on such Forest Management Basis. Signatory of this claim, Gordana Pavokovic, was working in such institution for nature protection and can confirm that **any objection on the Forest Management Basis has never been accepted**.

The Bern Convention authorities could simply control our statements asking the State Institute for nature protection the lists of all objections on Forest Management Basis, which that institution made in the period from 2006 up to today and to compare it with Forest Management Basis which was accepted. The same thing could be done with the objections prepared by County institutions for nature protection.

In the Government report it is said that *"...it is visible that cutting in state owned forests is less than their accession, that being the basis of sustainable forest management"*.

That's **another manipulation**. The situation is the opposite. We already explained this statement, but here we add also the following: when our Government writes about accession, they **take into consideration all forests, including those which are not valuable for cutting**. In the contrary, when the State firm Croatian forests **perform cutting**, they **do it only in the forests with the quality** wood production. That's why in the most important parts of bear habitat almost all mature woods has been cut or marked for cutting.

Due to that fact, in our forests, recently, there is a rapid loss of biodiversity, for the following reasons:

1. The percentage of **mature trees** rapidly becomes much **lower**
2. The number of **plant species** in the forest is in **decrease**
3. Rapid **decrease of dead wood** that needs to stay in the forest.

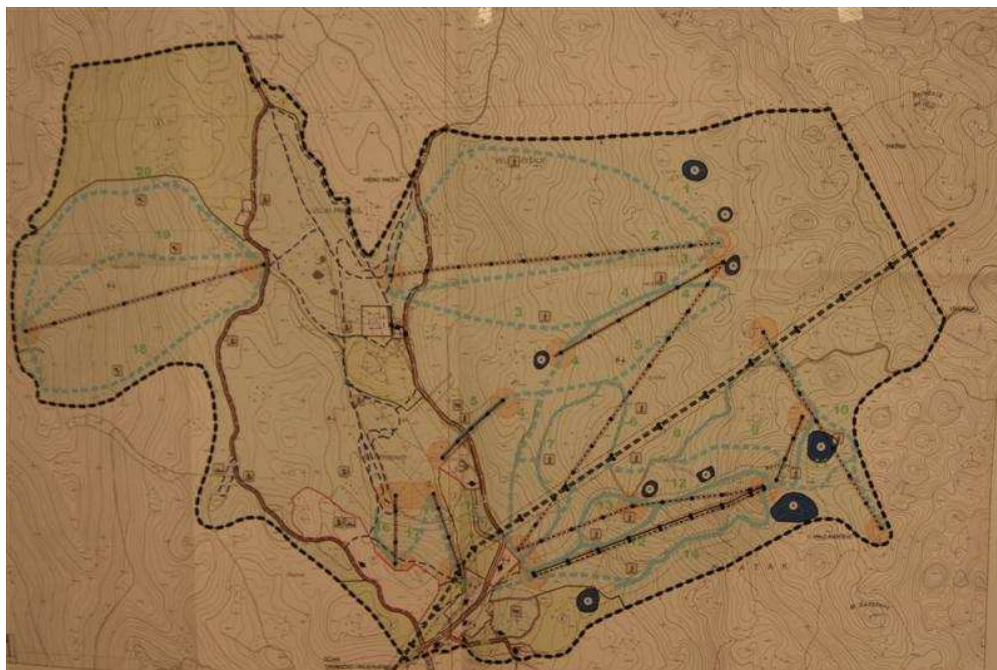
Like in other things connected with bear and its habitat, NGOs and other interested individuals **cannot get any information** from Croatian forests, or get insight to Forest Management Basis. So, there are **no public insights and public hearing** where all interest parties can give their remarks, as it is stated in the Government report.

We would be very satisfied if you could give us the opportunity to show you in our mountains everything we wrote in our answer. We are always ready to do it.

Other infrastructure

In our claim we emphasized the danger of **habitat destruction by other infrastructure** (that is already constructed or is planned to be constructed) and Government report **does not deny our statements**. We particularly underlined **ski resorts** that are planned to be built in bear habitat, and two of them on the borders of national parks. We explained in details that these ski resorts are not economically justified due to many reasons and are ecologically very harmful for bears and other species as well as for their habitat. Practically, all these plans have corruption background.

All these plans are still actual and included in a formal Spatial plans and central **authorities** responsible for **nature protection do not react** at all.



This photo represents **extract from the Spatial plan** with the sketch of a part of **future ski resort that is planned to be constructed on the border of the National Park Risnjak**, one on the most suitable bear habitat in Croatia. It is consciously avoided to put the border of the National Park Risnjak on the map.

Spatial plan of town of Vrbovsko foresee the construction of ski-center Bijela kosa, also in the vital part of bear habitat, and the Spatial plan of Lovinac district foresee the construction of ski-center on Velebit Mountain, protected by UNESCO, on the border of National Park Paklenica, which is also bear habitat.

In the Annex 2 of the Government report, Ministry of environment and nature protection claims that in Croatia “*we have had EIA studies with negative opinion*” regarding planned investment, but **they do not give any example of such rejected EIA studies**.

If the Ministry wants to deny our statements, they should give appropriate examples, especially **those cases connected with possible endangerment of bear habitat**.

Poaching and poisoning

Poaching

In the Government report they admit that out of 40 radio-collared bears, **the poaching was confirmed** for 5 bears. It means that 12,5 % of marked bears were illegally killed due to poaching. This percentage should be increased by the cases that remain undetected (cases when the signal is lost and the radio collar or bear were not founded). In the same time, the annual hunting quota is determined by 10 % of the estimated population size. It means that **poaching takes more bears than legal hunting**.

Just for the information, in the winter 2003/2004, only in the Gorski kotar region (part of bear habitat in Croatia), Ladislav Radoslovic, the signatory of this claim, found carcasses of five bears killed by poaching. For all these cases he informed the Department for Biology of the Veterinary Faculty in Zagreb, which took some of carcasses for analyses. These were not radio collared bears. This data shows only the level of poaching.

All this cases were described in our previous claim raised in 2004, which was the base for EC Scientific review group to make a decision on the ban of the import of bear trophies from Croatia to the EU countries.

Despite the confirmation that poaching is very widespread, **the Government does not mention any measure it took in order to stop it or at least to decrease a level of poaching.** In Croatia there is **no one single case of punishment for bear poaching.** If the Government denies this statement, they should give the proof.

Poisoning

We do not deny that the main target animal for poisoning in bear habitat is actually a wolf (also protected by the Bern convention). It is the fact that **wolves are regularly and often victims of poisoning,** but the fact is that **the bear is also the victim.** Committee for bears and the Ministry for environment and nature protection **consciously ignore this problem, in all debates they deny that the problem exists.**

In the Government report they **do not give a single explanation which measures they undertake in order to solve this serious problem.** The reason for it is that **the Government does not take any action against illegal poisoning.**

Competence among the ministries

In our claim we warned on the problem regarding competence on bears.

We described only one example which clearly shows that the system does not function at all. The fact is that **if one wants to raise any question regarding bears** to the Ministry for environment and nature protection, that Ministry **refuse to accept any kind of competence.**

In the contrary, if one requests some action connected with protection of bear or its habitat from the Ministry for Agriculture and Forestry, they forward such requests to the Ministry for nature protection, which refuse to react again.

As a consequence of such behavior, for instance, we have a **restaurant near Korenica** (named Macola), where the **owner caught two young bears** ten years ago, and **he keeps them in captivity in the backyard of the restaurant, in order to attract tourists.** Since bears are kept in inappropriate conditions (small space, without shade, food, water...), many NGOs and individuals **demand for years** from both ministries to put the bears **in the sanctuary and punish the owner,** because this kind of behavior does not exist in Europe anymore, but the both ministries **refuse to take any measure in order to save bears,** claiming that it is not within their competence. At the end, the Government **legalized such behavior** and Macola still keeps these bears in such conditions.

All this happens in the country that signed the Bern Convention.

In this report **the Government does not explain how in practice solve similar problems,** when they appear.

Although the Bear sanctuary in Kuterevo is founded in 2002, and so exist for almost 10 years when the case with the orphaned bear Tomica appeared, the Government **does not explain how is possible that bear orphan cub remains 6 months on the street** begging for food, without solving the problem.

Garbage dump problem

It is funny that **beside so many open garbage dumps within the bear habitat,** even in the national parks and in the protected areas, which are easily accessible for bears, the Government **raises**

attention on several garbage cans, out of which many do not exist anymore. All the garbage dumps are present today; they are equally accessible for bears as before, where bears get used to the humans, which is extremely dangerous for bears and for people.

All this is clearly visible on the field, and we would be very glad if we could have the opportunity to take you to the forest and show you the garbage dumps.

It should be undoubtful that **posters, leaflets and stickers will not remove bear from the garbage dumps or force people to change behavior on dumping garbage.**

We are completely aware that solving of the problem with garbage is not simple and easy to solve it in the short period of time. But, in Croatia there is a problem **the lack of will to initiate the solving of the problem**, although in the same time there is a will for construction of economically unjustified ski resorts in the vital part of bear habitat.

Obviously, the corruption and lack of knowledge determine the future of the bear and its habitat in one of the last European populations.

Closing remarks

In the contrary to the statements in the Government report, taking into the consideration the nowadays situation regarding bears and their habitat, **the measures for the protection of bear habitat** (especially the vital parts) **should be taken urgently**. We already recommended some important measures in our claim.

In the meantime, beside the measures for habitat protection, genetic analyses for the estimation of real population size should be performed in accordance to the scientific rules for performing such analysis.

There is no single sound evidence on the large bear population size or growing population trend in Croatia. From our field experiences, we could bring out completely different conclusions.

Dinaric bear population is one of the last stable European populations and obviously, without European help, that population will not be preserved for a long-term.

Precautionary principle requires from Croatian Government to change radically and urgently its behavior toward the bear and its habitat. As we already said, inadequate forest management and wrong approach to habitat and nature already caused the loss of certain species in the same habitat.

Please, **do not allow extinction of this very important European bear population**, taking into account the fact that there is enormous pressure on bears and its habitat in neighboring Slovenia and Bosnia and Herzegovina, which share the same bear population with Croatia.

Yours sincerely,

Ladislav Radoslović, barrister and Gordana Pavoković, PhD

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Rijeka, 1st August 2012.



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BERN CONVENTION Standing Committee

Ivana d'ALESSANDRO
Biological Diversity Unit
Directorate of Culture and Cultural and Natural Heritage
Council of Europe
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BEAR CONSERVATION MANAGEMENT IN CROATIA – A CLAIM



Dear Messrs,

We, the signatories of this claim are deeply worried for the future of brown bear population in Croatia, so we have decided to warn you on unsustainable situation regarding brown bear management in Croatia.

We hope that European and international help and pressure could give a positive impact on our authorities to start proper bear management.

The members of NGO Animalia are systematically engaged in monitoring, observing and exploring the bear population in Croatia and neighbouring Bosnia and Herzegovina for years.

Beside the usual methods of studying scientific articles, gathering information from people who get in touch with bears in everyday activities, the members of Animalia are also continuously in closed contact with those wild animals and their habitats.

Some members of Animalia already submitted the claim against Republic of Croatia in 2003, regarding the same issues, and after that claim the EC Scientific Review Group (Department for Development and Environment) decided upon the import suspension for the brown bear trophies from Croatia in the countries of European community.

Please find enclosed the copy of this claim.

Although Croatia has made Bear management Plan in 2005, the real situation did not change at all, and today we are still faced with many real threats to bear population.

We suggest that Bern Convention Standing Committee take urgent measures in order to improve the conditions for the favourable conservation status of brown bear in Croatia and in order to force Croatia to meet the requirements of the Bern Convention, CITES and Habitat Directive of EU, that are obliging for Croatia.

This claim is divided in chapters, taking into consideration the issue that is going to be explained in each of them.

1. CURRENT LEGAL SITUATION

In Croatia brown bear, according to official data, is permanently present on the territory of 9.200 km² and temporarily present on approximately 2.800 km². Brown bear is the hunting game on that whole territory, except on the territories of the national parks within this range. In that area there are four national parks: NP Risnjak 64 km², NP Northern Velebit 109 km² (including Hajdučki & Rožanski Ledges Strict Reserve), NP Plitvice lakes 296 km², NP Paklenica 95 km². Beside national parks, bear hunting is prohibited in Biješe and Samarske stijene Strict Reserve 11 km². It means that the bear is present on 12.000 km² and is hunted on 11.436 km² (95,3 % of the territory where the bear is present). The areas of national parks are separated enclaves and on their borders hunting is legally practiced. Taking into consideration the usual movement range of brown bear, one could simply conclude that isolated protected areas within bear habitat, in a hunting sense, do not represent protection for bear at all (of course, for other reasons, protected areas are very useful for bear conservation).

Within bear habitat, bear population is managed on the basis of Bear management plan and the action plans that are brought out on the yearly basis.

The annual hunting quota for 2011 is 100 bears + 40 for predicted loss from other causes (traffic, poaching...).

Croatian authorities decide upon this number on the basis of the estimated population size. Official estimation is app. 1000 individuals.

The annual hunting quota (100 bears) is divided among hunting grounds on the basis of the size of the hunting area, where hunting areas with best habitats usually get proportionally the biggest quotas (which is ecologically and socially unsustainable, because obviously the bears within the core area should be less exposed to hunting, comparing with bears on the habitat edges).

Croatia is signatory of Bern Convention, and is obliged also by the Habitat Directive and the EU biodiversity strategy to 2020, in bear management issues.

2. HOW THE MANAGEMENT PLAN AND ACTION PLANS WERE ADOPTED?

As already described in previous claim (enclosed) the Management plan was drawn up by working group consisting of 8 allegedly expert members chosen by two Ministries (the Ministry of Agriculture and Forestry and the Ministry of Environmental protection). The way itself in which the members of the group were chosen shows us that the aim of the formation of the working group was not to use all the expert knowledge of the members for the benefit of the bear, but it was their "expert trade" in order to get to the "consensus of all" and thus avoid possible public reactions.

A certain circle of general public was present only at the first, preliminary meeting and very few of them on the last one, which means that the whole Management plan was brought out without the public participation.

Unfortunately, this practice of avoiding the public participation is continuing also today regarding the Action plans brought out on annual basis.

NGOs, interested individuals, or experts that are not involved in the group of people "in charge" for bear management in Croatia, simply **cannot participate** in activities connected with bringing out of Action plans. So, in other words, although wildlife conservation is a public matter, and no matter how qualified or interested one could be, there is no possibility to contribute or control the work of the group of people currently involved in bear management in Croatia. It is not very difficult to conclude why.

NGO Animalia has requested, until now, few times to participate in the process of carrying out the Action plans, but we were always rejected or our request was simply ignored. On the other side, “Bear management group” regularly consists of members of hunting organizations (which we consider legitimate!), but beside them the group should consist of people or NGOs who are interested or work on bear conservation. Unfortunately, interested public cannot participate in any way, which means that in Croatia the “bear issues” are exclusively in the competence of hunters and hunting organizations. We should emphasize that in the Committee, there are also representatives of different ministries and other institutions, but all of them are active members of hunting organisations or if not, they participate in the work of the Committee passively, so, in any case, they accept everything proposed by dr. Huber or representatives of hunting organisations. All of them became members of the Committee because there was a certainty that none of them would ever be an obstacle to the “State policy for bears” represented by hunting organisation and Dr. Huber. All this should be visible in minutes of this Committee.

We emphasize that, from the expert side, in this group participate only the experts from Veterinary faculty, University of Zagreb, lead by Djuro Huber, PhD, but all other experts (biologists from other institutions, NGOs, lawyers, sociologists etc.) have no possibility to participate, as described previously. The reason for the privilege of Dr. Huber is his narrow connection with representatives of different Ministries and Hunting associations, which allows dr. Huber to be financed through different kind of projects financed by the State and its ministries, local authorities and always in the cooperation with hunting organizations. For that reason dr. Huber is always ready to support hunting requests and hunting attitudes.

There are many proves for our statements, but for this purpose we shall cite only a part of Bear Action Plan for 2011, which is supported by dr. Huber, as a member of the Committee.

“We should emphasize the positive progress in kill efficiency comparing previous years. For sure, it was due the workshops held with Hunting grounds leases on 29th September 2009 in Senj and on 30th June 2010 in NP Risnjak. There, the National Committee and Hunting grounds leases presented their own points of view regarding this issue. **In this Action plan it was tried to accept as many as possible requests of the Hunting grounds leases which are acceptable, so the quotas in 2011 could be better carried out.”**

3. HOW WAS DEFINED BEAR POPULATION SIZE?

Recent history

Up to 1994 bear management in Croatia was maintained in sustainable way. Although in that time there was no scientific research on the bear population size, it was estimated that the population size was approximately **400** bears, which was supported by all Croatian experts, including Dr. Huber (which is well documented). Up to that time, the right for bear hunting possessed only the state firm – Croatian forests, while hunting ground leases (with certain exceptions) mostly did not have the right to participate in bear hunting activities.

In 1994 was enforced the new Law on hunting which allowed the right for bear hunting to all hunting ground leases, which possessed hunting grounds on the territory of bear habitat. It means that the right for bear hunting in that moment obtained even those hunting ground leases that possessed hunting grounds of the very small size. So, the actual situation was that each single hunting ground presented its own bear population size. For that reason, we suddenly from **400** bears came to the official number of approximately **650** bears!

That was one of the most important reasons for bringing out of Bear Management Plan on the state level. Namely, it was considered that the population size should have been estimated for the whole bear areal in Croatia, and after that, the state should have determined the right for bear hunting for each hunting ground lease, according to certain criteria (e.g. hunting area size, quality of habitat...).

On the beginning of bringing the Bear Management Plan, experts who participated in these activities (among them is Dr. Huber) claimed that there were between **400** and **600** bears. After one year, on the last meeting of the Committee which decided upon bear management plan (members are

explained in previous chapter), the same experts claimed that in Croatia we had between **600** and **1000** bears!

All these data could be obtained from the minutes of the meetings.

Some members of NGO Animalia, which were present only at the last meeting of the Committee, have raised the question how was obtained the bear population size. Nobody from the Committee did answer the question, and one member of the Committee openly told: "it is true that we have sucked it out of the thumb, but we have to start with some number".

Inefficient methods for sampling

The sampling of bear tissue, hair and faeces, for the purpose of genetic analysis, started in Croatia in 2003. The initial object for the collection of samples was the determination of the population size. Different people and groups have been involved in sampling, and some members of Animalia were among them. Sampling continued up to 2007.

It means that the sampling period lasted for 5 years, from 2003 till 2007. At the end of the sampling period, all the samples were taken together and were analysed together like there were samples from the short sampling period (2-3 months in one year).

Taking into consideration the time of sampling (5 years) this kind of sampling method could not be taken as a basis for the estimation of the population size. Namely, **the average age of bears in Croatia, due to strong hunting pressure, is approximately 4 years** (which is explained later in chapter 7.), which means that in the last sampling year many bears from the beginning of the sampling period were already dead. **According to the basic rules for genetic analyses directed to estimate population size, samples should be taken in a very short period** (the best would be in the period of few months, when birth is absent and death is generally low, which helps in assuming that the population is "closed" during this time period).

Having the results from particular year, one should repeat analyses for following (at least) two years and then one would have the average bear population size in the area. But, in any case, in genetic analyses directed to estimate the population size it is forbidden to sum up samples taken in different years because the population in such long time period is not closed (population influx, birth, death, dispersal...).

Taking into consideration the sampling period (5 years), this analysis couldn't be used for the estimation of the population size, but eventually for other purposes. According to this, these collected samples were analysed in Croatia (as PhD study) for the determination of genetic characteristics of the brown bear population in Croatia. It means that these genetic analyses were used for other purpose, as it was clearly written in the PhD study.

But, after that, the members of the Committee started the manipulation with the results of genetic analyses intentionally misinterpreting these results as a proof that we in Croatia have at least 1000 bears, just as it was told on the last meeting of the Committee who brought out the Bear Management Plan.

Beside all of this, all of the analysed samples were taken on three areas with the biggest population density (Snjeznik Mt massive, Velika Kapela Mt, north Velebit Mt) within bear areal in Croatia.

On each of those three sampling areas, on the basis of samples collected in the period of 5 years, the members of the Committee estimated which could be the highest number of bear population size on each of the sampling area, and those highest numbers were extrapolated on the whole areal of bear in Croatia.

In the contrary, scientific approach would be completely different. To avoid bias, the sampling areas must be representative of the whole and must be determined in advance. Then, one should take samples in at least three different (representative) areas with different density of bears (the highest, middle and the lowest), after that it should be made a statistical analyses of the range of bear number in each area, then, it should be counted the mean firstly in each area,

and then in all areas together using acceptable statistical methods, and finally extrapolate the mean value of all sampling areas on the whole bear territory.

From all this it is very clear that the population size of bear in Croatia is well manipulated, aiming to the highest hunting quotas.

All of this is clearly visible in the most recent Action plan for bear management in 2011 where it is explained that the samples for genetic analyses were taken on very narrow area. It is interesting that this particular sampling area within bear habitat is **actually the area with the highest number of feeding places with the highest frequency of feeding**. Besides, the sampling area was not determined in advance, but samples were taken at first and then it was decided that the area with the highest number of found samples would be analysed. **Also, it is unknown which was the sampling period for analyses mentioned in action plan.**

So, further explanations of the manipulation with bear number are unnecessary. On the basis of such analyses, the bear population size is estimated to 1000, just according to the hunter's desire who annually get the right to kill 10% of the population i.e. 100 bears. We could add that Dr. Huber, the member of the Committee, was involved in these research activities.

4. FOREST MANAGEMENT

Although bear management plan should involve some rules for forest management, in order to avoid disturbance and preserve suitable habitat for bears, it is not the case in Croatia.

For bears it is important that forestry maintains food trees and that presence of hunting and forestry practices do not disturb denning bears during winter (Large carnivore initiative, 2007).

In Croatia, forest management is practiced according to the rules that are opposite to bear conservation. Old dead trees are usually removed from the forest and not left for the animals. It is particularly worrying that in the recent time, due to the economic crisis, cutting of the trees is dramatically increased.

The cutting of the trees is performed by the state firm "Croatian forests". **According to the official data of the Croatian forests, in some parts of Gorski kotar region (one of the most important bear habitat), the cutting is increased in the few last years for 38%, which is an enormous increase.**

Also, it is not a secret, that this official data will be exceeded in a way that we could expect that the cutting pressure will be increased for more than 50%. For instance, on the territory of the town of Vrbovsko in Gorski kotar, the average cutting quota until few years ago was from 44000 to 47000 m³, today it is officially planned that the cutting quota should be 58000 m³, but in reality it is expected that cutting quota would be approximately 70000 m³, although this area is included in National ecological network and planned for Natura 2000 network.

There are some indices that the reason for the increasing of the cutting is the fact that this area is mostly planned to be a part of Natura 2000 network, which will be realized by entering Croatia in EU, so we presume that the state firm Croatian forests consider this moment as the last one for "getting the benefits".

All these facts are simply visible from the documentation of Croatian forests as well as from the state on the field.

Moreover, some experts from Croatia forests have raised their voice in public against this practice and presented these data in media (for instance in Novi list 13.5.2011. and 31.5.2011.).

Unfortunately, increase in cutting rate is so significant, that is visible to every single mountaineer walking through the forest. In the last 2-3 years, the most preserved forest within the bear habitats are significantly degraded, so in many areas all older and bigger trees have been cut, or are planned to be cut, which is visible by special markings made on the cork (used in Croatian forests).

It is particularly tragic, that our most valuable forest on the Velebit mountain (protected by UNESCO), which is probably the best bear habitat in Croatia, is degraded and intersected by numerous new logging trains. It is a common practice that cutting is performed even in the period

when females are denning with offspring, causing abandonment of offspring. Due to degradation of habitats, bears often approach to human settlements, causing anxiety and convincement of the high bear population size.

Forest inspection, although formally exists, have never (not in one single case) identify any kind of mistake or transgression in forest management conducted by state firm Croatian forests. One should know that forest inspection is a state institution as well as Croatian forests are a state firm. So, it is not very difficult to find an explanation for such behaviour.

It is clear that forest management in Croatia is completely inappropriate and unsustainable regarding the bear population and if this trend continues, it is a questionable if habitat conditions will be suitable for the bear in a near future.

5. FOREST INFRASTRUCTURE

Forest roads have negative impact on bear population. Scientists claim that 10 km of forest roads on 1000 ha represent a limit which shouldn't be over exceeded if one wants to preserve bears in a certain habitat. In Croatia, unfortunately, that limit is over exceeded a long time ago. Although, that fact is well known in Croatia, nobody cares how many kilometres of new forest roads will be constructed. Also, in the same time, the existing forest roads become wider and asphalted, which is negative for bears as well.

Due to these well known facts, on the last meeting of the Committee when the Bear Management Plan (2004) was brought out, the "experts" from the Committee presented that in bear's habitat in Gorski kotar region (app. 50% of bear habitat in Croatia) there were already more than 20 km of forest roads per 1000 ha, which means it was 100% more than maximally recommended.

Taking into consideration this fact, the members of the Committee explained that in Gorski kotar new forest roads are not planned because it could have a negative impact on bear population. Also, they pointed out that this 20 km of forest roads enabled high level of commercial exploiting of the forest and that new forest roads were unnecessary from economic point of view as well.

Unfortunately, after that, constructing of new forest roads has been continued. For that reason, today we have more than 25 km/1000 ha of forest roads in many areas. Besides, existing roads become wider and asphalted. Today, we have a situation that forest roads are constructed even in the most remote areas which are extremely important for bear – for feeding, raising the offspring and denning.

Also, for the construction of forest roads, according to the Croatian law (The Law on forests, Official Gazette 140/05, art. 47/3), no matter how long, wide or where they are planned, it is obliged to get only the permission of the ministry responsible for nature protection. That ministry issue permits practically without exceptions, and always without any assessment of the impact on the bear as well as without public participation.

In other words, state firm Croatian forests, builds roads wherever or whenever they want, no matter how harmful it could be or it is for bears or other wildlife and the competent ministry only confirms their decisions regarding forest roads construction.

Due to heavy forest road construction, Capercaillie *Tetrao urogallus* is completely extinct in the greatest part of habitat, which has recently shared with bear.

In Croatian history, due to high public pressure, there were only two examples that the forest road construction has been stopped:

- First time it was in Smrčeve doline, the most valuable and beautiful part of Velebit mountain (under protection of UNESCO), when Croatian forests wanted to exploit forest just before the proclamation of the area as a National park.
- The second time it was in Štokić dula in northern Velebit, in the same time and with the same motive as for Smrčeve doline.

There are other examples, where Croatian forests also heavily exploited and destroyed the area before the planned protection status (e.g. Pakleno in Gorski kotar).

If this situation will continue, the bear will follow the same destiny.

Today, forest roads are much wider than the old one. Their average wideness is app. 7 m, which allows the heavy mechanization to reach the most remote parts of the forest (which are most often used by bears). Beside forest roads, nobody could even count how many logging paths have been built as well.



Photo 1: New forest road



Photo 2: Wide forest road

6. OTHER INFRASTRUCTURE

Besides forest infrastructure, bear population is also threatened by other infrastructure which is built or is planned within the bear habitat. Speaking about infrastructure, in the first line we have to mentioned highways (Rijeka-Zagreb and Zagreb-Split), which have been constructed in the recent time period. Although these highways fragment bear habitat and add cumulative negative impact on bear population, we are aware of its significance for Croatian economic system, and for that reason, we don't expose them to our critic.

But, unfortunately, there are many other infrastructures that are planned in bear habitat in Croatia, without any economical justification.

For instance, although the mountains suitable for bears in Croatia are near to the sea, with low altitudes, what is the reason that the snow is not often present there and are not suitable for skiing, there are plans for construction of huge ski centres with accompanied infrastructure in very important parts of bear area.

In the important part of bear habitat in Gorski kotar, near town of Vrbovsko, it has been started the construction of ski centre "Bijela kosa". The wide asphalted road was constructed in the area, on the place of the planned ski slope all the trees were removed (and destroyed important Capercaillie courting ground), digged channels for water and electricity, but after that, the whole investment stopped because **the authorities calculated that the development of the project would be too expensive comparing expected economic results**. Unfortunately, the damage has already been done.

In the same time, much bigger project is planned on the Platak region, on the border with National park Risnjak. The project has been developed for the ski resort, where 8 new ski slopes should be built with accompanied infrastructure, and within ski-center it is predicted to construct hotels and apartments with 2050 beds. This project is already approved by urban plans of County of Primorje and Gorski kotar. **The problem is that the Platak area, where ski-center is planned, is only 10 km away from the sea, on the altitude of 1100 m, where the winter is regularly without snow, with lot of rain and the presence of strong winds.** All this make skiing economically unjustified. For instance, in the last winter season, there was not one single day suitable for skiing!

The other problem is that ski-center is planned just next to the border of National park Risnjak, which is one of the most important bear habitats in Croatia. This detail was not mentioned during urban plan development.

In our objection on the urban plan, we explained in details the non profitability of the project and ecological damage which could arise, and supported all our claims with meteorological, economical and biological data, and after more than 6 months we got an answer by which the local authorities informed us that our objections exceed their competence. So, the only conclusion is that this project is planned only in order to spend the public money with obvious corruption background. Probably, the project will be started, the money will be spent and on the certain level, the project will be stopped due to non profitability, as it was done in above mentioned ski project "Bijela kosa". **The tragedy is that the scope of local authorities is to apply for the funds of European Union in order to cover the expenses that would be caused by this project.** In the same time, central authorities responsible for bear protection and for nature protection in general, although informed, do not react at all.

The similar project of ski slope construction is planned on Sveto brdo, South Velebit. In this case, ski center is also planned just on the border of Paklenica National Park and inside the Nature Park Velebit. As we already mentioned before, the whole Velebit Mountain is under the protection of UNESCO due to great biodiversity and extreme beauty, which means that despite the fact that there are three levels of protection of the area, local authorities supported by the State, plan to destroy that part of Velebit Mountain. This part of Velebit is also important bear area, but this, obviously, is not a sufficient motive for its protection.

In this case, as well as in the case of Platak, the ski centre is planned in the area which is not suitable for ski centre due to its climate characteristics, low altitude, very strong winds and small distance to the sea.

For instance, in that area winds blow very often more than 250 km/h, variation of the temperature are frequent, so in winter time temperature could vary from +15°C to -20°C. That's why snow conditions are not suitable for skiing, and production of artificial snow is impossible. In this case, as well as in the case of Platak, local authorities announce applying for the EU funds in order to cover the expenses for this investment.

Although in this case is also clear that ski centre will never function on economical base, it is very possible that the construction work will start just in order to spend the public money.

Although there are well known meteorological, ecological and other necessary data which should stop the development of these investments, taking into consideration the practice in Croatia, in all this cases we could expect that EIA studies will support the wishes of investors. Namely, public participation for all EIA studies is just formal, and all objections are regularly rejected if they are not

in accordance to the wishes of investors. In Croatia we do not have an example that the EIA study has expressed negative opinion regarding planned investment.



Photo 3: Construction on ski-slopes on Bijela kosa near Vrbovsko

7. POACHING AND POISONING

Although the old Croatian saying goes: «Protected as a bear from Lika» the truth is that bear, in reality bear is often victim of poaching. Like in other European countries, Croatia is not immune on this impact that affects wildlife.

The level of poaching is not included in any official estimation of bear population losses, creating an impression that this problem is minor in Croatia, which is not true. But, official deficiency of any data regarding illegal killing of bear does not mean that the problem is not ever-present.

Just for the impression for the level of poaching we are giving an example from Velebit Mountain and Lika (this area represents significant part of bear areal in Croatia) where two years ago two adult bears (male and female with three cubs) were marked with radio-collars by the firm OIKON. Within two months (out of hunting season) both bears have disappeared and collars have never been found. In the case of natural cause of death, radio-collars would be found with high probability.

Hunting inspection in Croatia, although exists, do not perform any investigation in such cases. Also, hunting inspection does not perform investigation in the case of misuse or abuse of the Law on hunting (e.g. when hunting ground leases do not expose food on feeding places, or put food on the place where it is forbidden, or perform hunt out of hunting season, or hunt in the way that is not allowed, or in the places where they shouldn't hunt...).

Due to mentioned inefficiency of hunting inspection, most people do not submit claims to the hunting inspection anymore, because it is well known that hunting inspection do not react at all, naturally, always without sanctions or any other negative consequences toward inspector.

Members of the Committee do not make efforts to investigate proportions of poaching or act in any way to prevent or stop and persecute poaching activities. The importance of poaching issues is deliberately diminished.

The proportion of hunting and poaching pressure is obvious when one consider the average age of bears in Croatia. It is only 4 years! The average bear could not reach adulthood, before the first mating it is already killed. It means that very few of them could successfully transfer their genes, because bears usually do not mate immediately when they reach adulthood (4 years), but when they can successfully beat the strong competition.

The problem of illegal poisoning of wildlife is completely ignored by the state authorities.

The Committee for the problem of illegal poisoning in nature was established within the Ministry of Environmental Protection and Physical Planning on March 20, 2001, but the work of the Committee

was halted when the ministers changed after the elections held in 2003. After that, Croatian authorities, including Ministry of Culture (responsible for nature protection) do not recognize illegal poisoning as a problem in wildlife management at all.

In the meantime, in Croatia we had numerous cases of wildlife poisoning (e.g. the case of massive poisoning of 17 Eurasian Griffons on the Island of Rab and numerous individual cases of poisoning), but it didn't affected the attitude of the authorities toward this problem.

Today is well known that in the area of Lika (behind the Mountain of Velebit) and Dalmatia, there is the highest intension of illegal wildlife poisoning because local people have conflict with wolves. Mostly people in their sixties and seventies keep sheep and guard them while they graze. Wolves occasionally prey on sheep, but compensation from the government for this loss is slow in coming; it can take two years or even longer to get money for the sheep lost to depredating wolves. The problem of delayed compensation is well known to the Ministry of Culture, Department for nature protection.

So, when compensation takes too long, sheep herders and farmers take matters into their own hands by putting poisoned baits on animal carcasses. It is not a secret anymore that some sheep-dogs donated to shepherders in Lika by State institute for nature protection were killed by poisoning intended to wolves.

So, the bear population which shares the same habitat with wolves is also endangered by illegal poisoning in Lika region, because bears are also scavengers and eat carcasses laced with poison.

The best example is the incident of bear and jackal poisoning, discovered in the hunting ground adjacent to the Velebit Nature Park (one of the most important bear areas in Croatia). Carbofuran was detected in the stomach contents and in the baits by GC-MS and in the kidney and liver by LC-MS, and the authors surmised that the animal succumbed to poisoning by carbofuran. The incident was reported by Reljić, Srebočan, Huber et al. (2010).

So, it means that the Committee for bear management ignores the wildlife poisoning issue, but, at the same time, Dr. Huber, a member of the same Committee, publishes a scientific paper proving the poisoning. In other words, he synchronously intentionally ignores poisoning issue in Croatia and creates the wrong picture for the international bodies that control the implementation of the Bern Convention and other International directives, but at the same time publishes scientific article about bear poisoning in Croatia.

8. COMPETENCE AMONG THE MINISTRIES

In Croatia it is not clear who is responsible for bear conservation. Theoretically, the competence over bear management in Croatia is divided among three ministries:

1. The Ministry of Culture, Department for nature protection;
2. Ministry of regional development, forestry and water management, Department for hunting;
3. Ministry of agriculture, fisheries and rural development, Veterinary Department (for veterinary issues and bear sanctuary)

and the Committee for bear management.

The competence among the ministries and the Committee transforms in the classic story of four people named Everybody, Somebody, Anybody and Nobody when particular problem arise. "Whenever there was an important job to be done and Everybody was sure that Somebody would do it. Anybody could have done it, but Nobody did."

It is the most obvious in the case of orphaned bear cubs (one sibling died soon), as in the case of Tomica **bear cub, which lived alone on the asphalt road near Kupa river for 6 months!** The president of local hunting society Vidra, Turke on 12th April 2010 submit a request for sending a cub in Kuterevo (bear sanctuary), but the Committee for bear management rejected it. So the bear survived begging for the food from local people and tourists. The hunters claimed that they fed the cub, but we checked and found that was not completely the truth. For all this time, the Ministries and the Committee did not react in any way, claiming that there is an administrative problem. After our strong media campaign and letters of complaint, the cub was finally transported to Kuterevo bear refuge,

where it still lives, with psychological consequences of anxiety – sucking of the finger, fear of other bears and so on.



Photo 4: Small bear cub Tomica is begging for food on the road

We should emphasize the question: if the Committee is not able to solve the problem of orphaned bear cub or at least unequivocally react in the public, how to expect that they could solve more complex situations, where biological moments, legal moments (based on Bern convention), legal and biological moments arose from forest management, hunting management (with all its negative aspects of poaching, big appetite of hunting leasers), infrastructure construction in bear habitat, illegal poisoning, local people needs are all being interwoven?

Great problem is that in any situation that needs reaction, authorities do not act, explaining their ineffectuality by administrative or legal problems, which is incorrect. It is especially disconcerting that the Ministry of Culture, responsible for nature protection, do not take over the responsibility for bear conservation and do not request the implementation of conservation measures (dealing with forest management, forest roads construction, other infrastructure construction, hunting management...), although the bear, according to the international conventions signed by Croatia, should be protected species.

9. GARBAGE DUMP PROBLEM

In bear habitat in Croatia there are many garbage dump sites which are accessible and consequently dangerous for bears. Some of these dump sites are very closed to national parks within bear areal, which emphasize its dangerousness. Bear freely roam on garbage dumps, get used on human food, loose the fear of humans and get in closer contacts with them.

That is the reason why we often could hear that there are many bears, due to impression made by numerous bear sightings near the human settlements.

Despite the fact that the influence of garbage dump sites on bears is well known, in Croatia, except the declarative value and few bear's proof garbage cans, scattered in several tourist areas, there is no particular action which would be beyond lip service. **Since the time of bringing out the Bear Management Plan (in 2004), not a single one garbage dump site accessible for bears was restored.**

Moreover, we had cases that bears came in National Park Risnjak and National Park Plitvička jezera in order to find food in garbage. And they were killed, but the problem with garbage has not been solved.

ABSTRACT:

It is clear that without meaningful reforms in bear management now, the bear conservation chances for success will be reduced to almost zero from the start.

The main problems in bear conservation in Croatia are:

1. The incorrect way of bringing out the bear Management plan and Action plans on yearly basis, without public participation and without any acceptance of public opinion, regardless the level of expertise.
2. Obvious manipulations with genetic analysis of bear population size as well as manipulations of bear population size itself.
3. Forest management out of compliance with bear conservation needs (increasing cutting rate).
4. Increased rate of construction of the forest infrastructure (especially forest roads, according to the law they are built without any permissions or regardless bear conservation needs).
5. Other infrastructure in bear habitat (ski-centres).
6. The lack of activities toward recognition and solving the problem of poaching and poisoning.
7. Avoiding the responsibilities among authorities.
8. The problem of garbage dumps that affect bears.

We ask the Bern Convention Standing Committee to urge the relevant Croatian ministries and institutions to solve the problems explained in this claim in order to ensure proper bear conservation in accordance to the spirit of international laws.

We would like to remind that Croatia is one of the last European countries with the stable bear population and it is moral duty of all relevant authorities to preserve them for future generations.

We consider that any part of Croatian biodiversity, including the bear, could not be a hostage of personal interest of few individuals or interest group.

OUR RECOMMENDATIONS

In particular, we ask the Bern Convention Standing Committee to urge the relevant Croatian ministries and institutions to:

1. enable efficient public participation in a future revisions of Bear Management Plan and in the procedure of bringing out the Action plans on a yearly basis with real taking into consideration the arguments of all participants;
2. perform genetic analysis in order to estimate the real population size, all in accordance with the scientific rules for performing such an analyze (**very short sampling period 2-3 months, representative sampling areas**, using of scientifically recognized statistical methods for the average bear population size);
3. ensure effective control in forest management, decrease the present cutting rate, and ensure that presence of forestry practices do not disturb denning bears;
4. stop the construction of new forest roads and forest trails, especially in the high mountain regions which are the most important for bear, to establish legal procedures for allowing forest road construction (with EIA and public participation);
5. make stricter conditions for constructing of other infrastructure in bear habitat, and making especially impossible the construction of ski centers (without future) in the vicinity of national parks, nature parks and in the important parts of bear habitats;
6. determine the real level of poaching and poisoning, enforce the strict control and real actions in order to diminish the level of poaching and poisoning;
7. precise the responsibility for bear conservation issues to the ONE MINISTRY, in order to avoid the shifting of responsibility (our suggestion is that bear should be under responsibility of the

ministry responsible for nature protection, although the bear in Croatia is currently hunting species, in order to protect bear properly);

8. take urgent measures in order to eliminate the garbage dump sites from bear habitat which are now accessible for bears.

We have tried to summarise this claim in order to expose in simplified way the essence of the problem. So, if you need any additional information or proof for our statements, please do not hesitate to contact us. We are always on your disposal.

We would appreciate the information regarding the answer of Croatian Institutions on our claim.

Also, we would be very grateful if you could provide us with the information on further development of the situation.

Yours sincerely,

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